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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/072,785	02/08/2002	Firouzeh Keshmiri	053182-9007-00	2939

23409 7590 05/27/2003

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EXAMINER

GLESSNER, BRIAN E

ART UNIT

PAPER NUMBER

3635

DATE MAILED: 05/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n No.

10/072,785

pplicant(s)

KESHMIRI, FIROUZEH

Examiner

Brian E. Glessner

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 March 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) 4-9 and 11-21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 February 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

The following office action is in response to the application filed on February 8, 2002 and the IDS filed on March 28, 2002. Claims 1-21 are pending in the application. Claims 1-3 and 10 are rejected and claims 4-9 and 11-21 are withdrawn from consideration as being drawn to a non-elected invention.

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-3 and 10, drawn to a frame and method for constructing the frame, classified in class 52, subclass 653.1.
 - II. Claim 4, drawn to a method for making non-wood structural elements, classified in class 106.
 - III. Claims 5-9 and 11-17, drawn to a lumber product, classified in class 428.
 - IV. Claims 18-22, drawn to a retaining wall, classified in class 405.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and IV are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions are not disclosed as being capable of being used together. The invention of group I is a frame structure normally used on the interior of a building, and the invention of group IV is a retaining wall used on the outside of a structure. These two inventions are not related and have different modes of operation and different functions. The frame functions to define a room in a building, and the retaining wall functions to hold back earth.

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3. Inventions I and III are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the frame could be made of other types of studs made from other materials. The subcombination has separate utility such as a lumber product for lining the beds of tractor-trailers.

4. Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the process as claimed can be used to make other and materially different products such as cellular concrete blocks for retaining walls.

5. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

6. Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Groups II, III, and IV, restriction for examination purposes as indicated is proper.

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7. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

8. During a telephone conversation with David Smith on 5/20/03 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-3 and 10. Affirmation of this election must be made by applicant in replying to this Office action. Claims 4-9 and 11-21 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Drawings

9. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the step of fastening a first planar frame section to a second planar frame section such that the plane of the first frame section is substantially perpendicular to the plane of the second frame section must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

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11. Claims 1-3 and 10 are rejected under 35 U.S.C. 102(a) as being anticipated by Di Lorenzo (CA 2,247,287).

In regard to claims 1, 3, and 10, Di Lorenzo discloses a frame assembly 20 for use in construction of a building, the frame assembly is capable of supporting a load, the frame assembly comprising a pair of elongated linear structural members 30, 35 (i.e. first and second members) positioned in spaced apart relationship, at least one elongate linear structural member 55 (i.e. a plurality of elongate parallel members 55 having first and second ends) extending between the spaced apart pair of elongated linear structural members, the first ends of the members 55 is attached to the first member 30 and the second ends of the members 55 are attached to the second member 35, at least one of the elongated linear structural members being formed from a non-laminated fiber reinforced (i.e. fiberglass or vinyl strings etc.) cellular concrete (i.e. lightweight concrete), the fiber reinforced cellular concrete providing the structural strength of the at least one elongated linear structural member, page 21, lines 21-26.

In regard to claim 2, Di Lorenzo discloses a method for constructing a building using non-wood construction products comprising the steps of constructing planar frame sections from elongated elements, said frame sections having the same limitations as set forth in claims 1, 3, and 10, and fastening a first planar frame section to a second planar frame section such that the plane of the first frame section is substantially perpendicular to the plane of the second frame section, figure 13. The structural limitations of claim 2 are rejected on the same grounds of rejection set forth above with respect to claims 1, 3, and 10.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 1-3 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zimmerman (4,751,803) in view of Fu et al. (5,494,513).

In regard to claims 1, 3, and 10, Zimmerman discloses a structural frame 10 for use in forming a building, the frame comprising a plurality of elongated intermediate elements 20 having first and second ends, an elongated first end element 23 fastened to the first ends of the intermediate elements such that each intermediate element is substantially parallel to the other intermediate elements and the intermediate elements are substantially perpendicular to the first end element, and an elongated second end element 27 fastened to the plurality of intermediate elements at the second ends of the intermediate elements such that the second end element is substantially perpendicular to the intermediate elements and substantially parallel to the first end element. Zimmerman does not specifically disclose that said at least one of said intermediate or first or second end elements are formed of a non-laminated, fiber-reinforced cellular concrete, wherein the fiber reinforced cellular concrete primarily provides the structural strength of said at least one element. Fu teaches that it is known to make wall panels, blocks, floor and roof slabs out of lightweight/cellular concrete products (abstract and column 1, lines 14-23). Fu also teaches the use of fiber reinforcement at column 4, lines 29-31 and column 7, last paragraph. It would have been obvious to one having ordinary skill in the art at the time the invention was

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made to use fiber reinforced cellular concrete for Zimmerman's elements, because by using cellular concrete, the elements will be lighter without sacrificing strength. Therefore, the elements will be easier to assemble and the overall panel formed will be lighter in weight.

In regard to claim 2, Zimmerman in view of Fu et al. disclose the basic claimed method for constructing a building using non-wood construction products comprising the steps of constructing planar frame sections from elongated elements, said frame sections having the same limitations as set forth in claims 1, 3, and 10. Zimmerman and Fu do not specifically disclose fastening a first planar frame section to a second planar frame section such that the plane of the first frame section is substantially perpendicular to the plane of the second frame section. The structural limitations of claim 2 are rejected on the same grounds of rejection set forth above with respect to claims 1, 3, and 10. Although Zimmerman does not specifically show the first and second planar frame sections fastened together in a substantially perpendicular manner, he does disclose that his panels are for use in building construction. Therefore, since buildings are known to have walls that are substantially perpendicular, it would have been obvious to one having ordinary skill in the art at the time the invention was made to place Zimmerman in view of Fu's wall frames substantially perpendicular to each other. This is common building practice performed by those having ordinary skill in the art.

14. Claims 1-3 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zimmerman (4,751,803) in view of Di Lorenzo ((CA 2,274,287).

In regard to claims 1, 3, and 10, Zimmerman discloses a structural frame 10 for use in forming a building, the frame comprising a plurality of elongated intermediate elements 20 having first and second ends, an elongated first end element 23 fastened to the first ends of the

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intermediate elements such that each intermediate element is substantially parallel to the other intermediate elements and the intermediate elements are substantially perpendicular to the first end element, and an elongated second end element 27 fastened to the plurality of intermediate elements at the second ends of the intermediate elements such that the second end element is substantially perpendicular to the intermediate elements and substantially parallel to the first end element. Zimmerman does not specifically disclose that said at least one of said intermediate or first or second end elements are formed of non-laminated, fiber-reinforced cellular concrete, wherein the fiber reinforced cellular concrete primarily provides the structural strength of said at least one element. Di Lorenzo teaches that it is known to construct elongated linear frame elements out of non-laminated fiber reinforced (i.e. fiberglass or vinyl strings etc.) cellular concrete (i.e. lightweight concrete), the fiber reinforced cellular concrete providing the structural strength of the at least one elongated linear structural member, page 21, lines 21-26. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use fiber reinforced cellular concrete for Zimmerman's elements, because by using cellular concrete, the elements will be lighter without sacrificing strength. Therefore, the elements will be easier to assemble and the overall panel formed will be lighter in weight. Further, Di Lorenzo even discloses that "It will be understood that the strength of the concrete will be determined by the required engineering specifications for the subject building," page 21, lines 22 and 23. Therefore, Di Lorenzo teaches that one having ordinary skill is capable of determining what type of concrete to use to achieve a desired strength.

In regard to claim 2, Zimmerman in view of Di Lorenzon disclose the basic claimed method for constructing a building using non-wood construction products comprising the steps

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of constructing planar frame sections from elongated elements, said frame sections having the same limitations as set forth in claims 1, 3, and 10. Di Lorenzo further teaches that it is known to fasten a first planar frame section to a second planar frame section such that the plane of the first frame section is substantially perpendicular to the plane of the second frame section, figure 13. The structural limitations of claim 2 are rejected on the same grounds of rejection set forth above with respect to claims 1, 3, and 10. Zimmerman does disclose that his panels are for use in building construction. Therefore, since buildings are known to have walls that are substantially perpendicular, as shown by Di Lorenzo in figure 13, it would have been obvious to one having ordinary skill in the art at the time the invention was made to place Zimmerman's wall frames substantially perpendicular to each other. This is common building practice performed by those having ordinary skill in the art and will produce a known building shape.

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Di Lorenzo, Reps, Carpenter, Mancini, Jr., Zimmerman, Martin et al., Weaver et al., and Keshmiri are all related to concrete wall construction.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian E. Glessner whose telephone number is 703-305-0031. The examiner can normally be reached on Monday-Friday 7:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl D. Friedman can be reached on 703-308-0839. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9326 for regular communications and 703-872-9327 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-2168.

B.G.

May 22, 2003

A handwritten signature in cursive script, appearing to read "Brian E. Glessner", with a long horizontal flourish extending to the right.

BRIAN E. GLESSNER
PATENT EXAMINER

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with fasteners passing through the members and the second ends of the plurality of members are attached to the second spaced apart member with fasteners passing through the members.

DiGiorlamo does not specifically disclose that said elongate members are precast members formed of a non-laminated fiber reinforced cellular concrete. Fu teaches that it is known to make wall panels, blocks, floor and roof slabs out of lightweight/cellular concrete products (abstract and column 1, lines 14-23). Fu also teaches the use of fiber reinforcement at column 4, lines 29-31 and column 7, last paragraph. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use fiber reinforced cellular concrete for diGiorlamo's elements, because by using cellular concrete, the elements will be lighter without sacrificing strength. Therefore, the elements will be easier to assemble and the overall frame formed will be lighter in weight. Also, by using lightweight concrete for the diGiorlamo's elongate members, the building frame will be formed entirely of concrete. Therefore, the building frame will be more resistant to fire, because concrete will not warp or melt like thin metal studs will melt when exposed to heat.

In regard to claim 2, diGirolamo discloses a method for constructing a building using non-wood construction products comprising the steps of constructing planar frame sections from elongated elements, said frame sections having the same limitations as set forth in claims 1, 3, and 10, and fastening a first planar frame section to a second planar frame section such that the plane of the first frame section is substantially perpendicular to the plane of the second frame section, figure 18. The structural limitations of claim 2 are rejected on the same grounds of rejection set forth above with respect to claims 1, 3, and 10.

Response to Arguments

4. Applicant's arguments with respect to claims 1-3 and 10 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Menchetti et al. and Miller are related to wall construction.

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian E. Glessner whose telephone number is 703-305-0031. The examiner can normally be reached on Monday-Friday 7:00-5:00.

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✓ If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl D. Friedman can be reached on 703-308-0839. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-2168.

B.G. *B.G.*
October 22, 2003



Carl D. Friedman
Supervisory Patent Examiner
Group 3600